



UNITED STATES DEPARTMENT OF COMMERCE
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APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR / PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
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09/226,623 12/21/98 DUARTE

C 78693

EXAMINER

PM82/0726

OFFICE OF COUNSEL BLDG 112T
NAVAL UNDERSEA WARFARE CENTER
DIVISION NEWPORT
1176 HOWELL STREET
NEWPORT RI 02841-1708

HERNANDEZ, O

ART UNIT

PAPER

3661

2

DATE MAILED: 07/26/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Notice of Allowability

Application No.

09/226,623

Examiner

Olga Hernandez

Applicant(s)

DUARTE, CHRISTIANE N.

Art Unit

3661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance and Issue Fee Due or other appropriate communication will be mailed in due course.

1. ☒ This communication is responsive to application filed on 12/21/98.
2. ☒ The allowed claim(s) is/are 1-19.
3. ☐ The drawings filed on _____ are acceptable.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
a) ☐ All b) ☐ Some* c) ☐ None of the CERTIFIED copies of the priority documents have been
1. ☐ received.
2. ☐ received in Application No. (Series Code / Serial Number). _____.
3. ☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- * Certified copies not received: _____.
5. ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

A SHORTENED STATUTORY PERIOD FOR REPLY to comply with the requirements noted below is set to EXPIRE THREE MONTHS FROM THE "DATE MAILED" of this Office Action. Failure to timely comply will result in ABANDONMENT of this application. Extensions of time may be available under the provisions of 37 CFR 1.136(a).

6. ☐ Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient. A SUBSTITUTE OATH OR DECLARATION IS REQUIRED.
7. ☐ Applicant MUST submit NEW FORMAL DRAWINGS
(a) ☐ because the originally filed drawings were declared by applicant to be informal.
(b) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review(PTO-948) attached
1) ☐ hereto or 2) ☐ to Paper No. _____.
(c) ☐ including changes required by the proposed drawing correction filed _____, which has been approved by the examiner.
(d) ☐ including changes required by the attached Examiner's Amendment / Comment.


Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the reverse side of the drawings. The drawings should be filed as a separate paper with a transmittal letter addressed to the Official Draftsperson.

8. ☐ Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Any reply to this letter should include, in the upper right hand corner, the APPLICATION NUMBER (SERIES CODE / SERIAL NUMBER). If applicant has received a Notice of Allowance and Issue Fee Due, the ISSUE BATCH NUMBER and DATE of the NOTICE OF ALLOWANCE should also be included.

Attachment(s)

- 1 ☒ Notice of References Cited (PTO-892)
3 ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
5 ☐ Information Disclosure Statements (PTO-1449), Paper No. _____.
7 ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
- 2 ☐ Notice of Informal Patent Application (PTO-152)
4 ☐ Interview Summary (PTO-413), Paper No. _____.
6 ☒ Examiner's Amendment/Comment
8 ☒ Examiner's Statement of Reasons for Allowance
9 ☐ Other


WILLIAM A. CUCHLINSKI, JR.
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with James Kasischike on July 5, 2000.

The application has been amended as follows:

Claim 1, line 5 delete 'a' after 'vehicle'.

Claim 1, line 6 delete 'random distance', after 'speed' insert --for a random distance--.

Allowable Subject Matter

2. Claims 1-19 are allowed.

3. The following is an examiner's statement of reasons for allowance:

Applicant discloses a method for conducting a search of an area for targets by a number of vehicles. Each of the vehicles randomly disperses from the other vehicles. During the aggregate phase, each vehicle responds in a pre-designated way to an encounter with one of the other vehicles. A number of specific search strategies may be followed which tend to direct the search in a particular designated direction or allow a successful searching vehicle to set the direction of the search.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Mutsuga et al, US Patent No. 5,911,773 discloses a navigation system for vehicles.
- Koyanagi, US Patent No. 6,078,865 discloses a navigation system for guiding a mobile unit through a route to a destination using landmarks.
- Lawson et al, US Patent No. 5,164,910 discloses moving target discrimination from passive measurement.
- Ashworth, US Patent No. 5,321,614 discloses a navigational control apparatus and method for autonomous vehicles.
- Onishi, US Patent No. 5,329,450 discloses a control method for mobile robot system.
- Nishikawa et al, US Patent No. 5,568,030 discloses a travel control method, travel control device, and mobile robot for mobile robot systems.
- Kawakami, US Patent No. 5,652,489 discloses a mobile robot control.

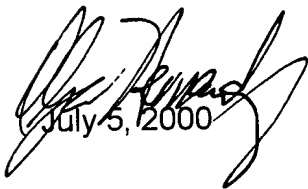
Art Unit: 3661

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Olga Hernandez whose telephone number is (703) 305-0918. The examiner can normally be reached on Monday through Friday from 8:00 am to 4:30 pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William A. Cuchlinski can be reached on (703) 308-3873. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3597 for regular communications and (703) 305-3597 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

Olga Hernandez
Examiner
Art Unit 3661



July 5, 2000



WILLIAM A. CUCHLINSKI, JR.
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office

NOTICE OF ALLOWANCE AND ISSUE FEE DUE

PM82/0726

OFFICE OF COUNSEL BLDG 112T
NAVAL UNDERSEA WARFARE CENTER
DIVISION NEWPORT
1176 HOWELL STREET
NEWPORT RI 02841-1708

APPLICATION NO.	FILING DATE	TOTAL CLAIMS	EXAMINER AND GROUP ART UNIT	DATE MAILED
09/226,623	12/21/98	019	HERNANDEZ, O	3661 07/26/00
First Named Applicant	DUARTE, 35 USC 154(b) term ext. = 0 Days.			

TITLE OF INVENTION: DISPERSE, AGGREGATE AND DISPERSE (DAD) CONTROL STRATEGY FOR MULTIPLE AUTONOMOUS SYSTEMS TO OPTIMIZE RANDOM SEARCH

ATTY'S DOCKET NO.	CLASS-SUBCLASS	BATCH NO.	APPLN. TYPE	SMALL ENTITY	FEE DUE	DATE DUE
2 78693	701-023.000	P81	UTILITY	NO	\$1210.00	10/26/00

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED.

THE ISSUE FEE MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED.

HOW TO RESPOND TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

- A. If the status is changed, pay twice the amount of the FEE DUE shown above and notify the Patent and Trademark Office of the change in status, or
- B. If the status is the same, pay the FEE DUE shown above.

If the SMALL ENTITY is shown as NO:

- A. Pay FEE DUE shown above, or
- B. File verified statement of Small Entity Status before, or with, payment of 1/2 the FEE DUE shown above.

II. Part B-Issue Fee Transmittal should be completed and returned to the Patent and Trademark Office (PTO) with your ISSUE FEE. Even if the ISSUE FEE has already been paid by charge to deposit account, Part B Issue Fee Transmittal should be completed and returned. If you are charging the ISSUE FEE to your deposit account, section "4b" of Part B-Issue Fee Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give application number and batch number. Please direct all communications prior to issuance to Box ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

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